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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,118	12/21/2001	Robert Harvey Kane	US010688	3122
24737	7590	10/09/2003	EXAMINER CURTIS, CRAIG	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			ART UNIT 2872	PAPER NUMBER

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/028,118

Applicant(s)

KANE, ROBERT HARVEY

Examiner

Craig H. Curtis

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by OLYMPUS (JP 10208284 A).

OLYMPUS discloses the invention as claimed--[a] light polarizing device (see Fig. 1) comprising:
a polarizing element (30 & 22 in Fig. 2) having an optically transparent substrate (see 22), an environmentally sensitive polarizing element (30, it being noted that everything is, to a greater or lesser degree, environmentally sensitive--in the case of said polarizer, humidity from the environment, for example, would in time negatively influence its performance) on said substrate, and a sealed enclosure (see 42 & lines 7-8 in BASIC-ABSTRACT) surrounding said polarizing element, the enclosure having a non-reactive (*read: inert*) atmosphere (viz., nitrogen) to protect the polarizing element from the ambient environment. *Id.*

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2. Claims 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Kizawa et al. (JP 405300416 A).

With regard to claim 5, Kizawa et al. disclose a sealable housing (1) for use in a sub-assembly for a display device ((which term has not been afforded patentable weight, as it has been held that a portion of a preamble is denied the effect of a limitation when the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause--*Kropa v. Robie*, 88 USPQ 478 (CCPA 1951)), the sealable housing comprising mounting apertures (viz., 2g, 2h, 2j) for optical elements.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over OLYMPUS (JP 10208284 A) in view of Shimizu et al. (6,511,183).

OLYMPUS discloses the invention as set forth above **EXCEPT FOR** an explicit teaching wherein said polarizing element is a wire-grid polarizing element.

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Shimizu et al., however, provide an explicit teaching wherein a wire-grid polarizer can be substituted for a conventional polarizer (col. 12, ll. 23-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of OLYMPUS such that a wire-grid polarizing element be substituted in place of polarizing element 30, for at least the dual purpose of optimizing to a desired degree the extinction of a desired polarization component as well as generally improving the management of polarization of light propagating through said device.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over OLYMPUS (JP 10208284 A).

OLYMPUS discloses the claimed invention as set forth above--and further teaches the following additionally recited limitations: an optically transparent cover sheet (43 in Fig. 1); a plurality of spacers (26-1 & 26-2 in Fig. 1) distributed around the periphery of said device and supporting said cover sheet on the substrate above the element--**EXCEPT FOR** an explicit teaching of a sealant extending around the periphery of said device between said substrate and said cover sheet.

OLYMPUS does however disclose the airtight sealing of said device (lines 7-8 in BASIC-ABSTRACT), and it is submitted that although OLYMPUS does not specifically disclose the precise nature of said airtight sealing, the use of sealants for such purposes is notoriously old and well-known in the enclosure art, and for at least this reason, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified, if necessary, the invention of OLYMPUS such that a sealant extend around the periphery of said device between said substrate and said cover sheet.

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5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over OLYMPUS (JP 10208284 A) in view of Shimizu et al. (6,511,183).

OLYMPUS discloses the invention as set forth above with respect to claim 3 **EXCEPT FOR** an explicit teaching wherein said polarizing element is a wire-grid polarizing element.

Shimizu et al., however, provide an explicit teaching wherein a wire-grid polarizer can be substituted for a conventional polarizer (col. 12, ll. 23-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of OLYMPUS such that a wire-grid polarizing element be substituted in place of polarizing element 30, for at least the dual purpose of optimizing to a desired degree the extinction of a desired polarization component as well as generally improving the management of polarization of light propagating through said device.

6. Claims 6 & 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kizawa et al. (JP 405300416 A).

Kizawa et al. disclose the claimed invention as set forth above--including the explicit teaching wherein said sealable housing comprises a triangular bottom portion (2a) and three face portions (see above & Fig. 2) and mounting apertures for optical elements located in each of the face portions (e.g., 2q, 2r, 2s)--**EXCEPT FOR** an additional teaching wherein said sealable housing further comprises a triangular top portion to form a wedge-shaped enclosure. However, absent persuasive evidence that a certain criticality can be associated with this particular configuration of the claimed sealable housing, or that this particular configuration is otherwise significant in some way, it would have been obvious to one

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having ordinary skill in the art at the time the invention was made to have modified said sealable housing of Kizawa et al. such that it further comprise a triangular top portion, for at least the reason of making more convenient surveillance of regions perpendicular to said three faces; and with regard to said top and bottom portions being right triangles (as opposed to the isosceles triangles disclosed by Kizawa et al.), such a change in shape would have been obvious for at least the reason of minimizing the amount of material needed to realize said sealable housing. *In re Dailey*, 357 F.2d 669, 149 USPQ (CCPA 1966).

7. Claims 8-10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dreyer et al. (5,504,544)**.

With regard to claims 8-10, Dreyer et al. disclose the invention as claimed--[a] sub-assembly for a display device (intended use), comprising a sealable housing (see Fig. 9) having a third mounting aperture (viz., the aperture in which lens 23 is disposed in Fig. 9), a light polarizing element (an inherent element in polarization-modulating display 32) having an environmentally sensitive active surface, a light modulator panel (32), and a lens (23) sealed into the third aperture (see Fig. 9)--**EXCEPT FOR** explicit teachings of the following: wherein said sealable housing further comprises first and second mounting apertures; and wherein said light modulator panel is sealed into said second aperture; wherein said sealable housing comprise triangular top and bottom portions and first, second, and third rectangular face portions extending between the top and bottom portions to form a wedge-shaped enclosure, the first, second, and third mounting apertures being located in the first, second, and third rectangular face

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portions, respectively; and wherein said top and bottom portions be right triangles having two short sides and a long side, the first face portion extending between the long sides of the top and bottom portions.

It would however have been obvious to one having ordinary skill in the art at the time the invention as made to have modified the sealable housing taught by Dreyer et al. such that (1) it further comprise first and second mounting apertures, said light modulator being sealed into said second aperture, for at least the purpose of making said sealable housing more robust, since it has been held that rearranging parts of an invention involves only routine skill in the art: *In re Japikse*, 86 USPQ 70; (2) it comprise triangular top and bottom portions and first, second, and third rectangular face portions extending between the top and bottom portions to form a wedge-shaped enclosure, the first, second, and third mounting apertures being located in the first, second, and third rectangular face portions, respectively; and (3) wherein said top and bottom portions be right triangles having two short sides and a long side, the first face portion extending between the long sides of the top and bottom portions. for at least the reason of making more convenient surveillance of regions perpendicular to said three faces; and with regard to said top and bottom portions being right triangles, such a change in shape would have been obvious for at least the reason of minimizing the amount of material needed to realize said sealable housing. *In re Dailey*, 357 F.2d 669, 149 USPQ (CCPA 1966).

With regard to claim 12, although said light-modulator panel 32 of Dreyer et al. is taught as being a transmissive liquid crystal light-modulator panel, transmissive and reflective liquid crystal light-modulator panels are, depending on a desired projection geometry art recognized equivalents in the projection art, and the selection of either of these known equivalents to achieve a certain projection

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orientation at the time the invention was made would have been obvious to and well within the level of ordinary skill of one of ordinary skill in the art.

With regard to claim 13, lens 23 in Dreyer et al. is taught as being a projection lens (see Fig. 9; also see col. 4, ll. 25-28).

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dreyer et al. (5,504,544) in view of Shimizu et al. (6,511,183).

Dreyer et al. disclose the invention as set forth above **EXCEPT FOR** an explicit teaching wherein said polarizing element is a wire-grid polarizing element.


Shimizu et al., however, provide an explicit teaching wherein a wire-grid polarizer can be substituted for a conventional polarizer (col. 12, ll. 23-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the sealable housing of Dreyer et al. such that a wire-grid polarizing element be substituted in place of the polarizing element inherently taught therein, for at least the dual purpose of optimizing to a desired degree the extinction of a desired polarization component as well as generally improving the management of polarization of light propagating through said device.

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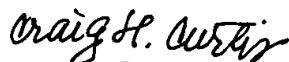
Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig Curtis, whose telephone number is (703) 305-0776. The facsimile phone number for Art Unit 2872 is (703) 308-7721.

Any inquiry of a general nature regarding the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-0956.

A large, stylized handwritten signature in black ink, appearing to read 'Audrey Chang'.

**Audrey Chang
Primary Examiner
Technology Center 2800**

A handwritten signature in black ink, appearing to read 'Craig H. Curtis'.

**Craig H. Curtis
Group Art Unit
29 September 2003**